UNITED STATES PATENT AND TRADEMARK OFFICE

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09/841,023	04/25/2001	Takanobu Otsubo	046601-5090	6182

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MORGAN LEWIS & BOCKIUS LLP
1111 PENNSYLVANIA AVENUE NW
WASHINGTON, DC 20004

EXAMINER
RUDOLPH, VINCENT M

ART UNIT	PAPER NUMBER
2625	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	09/841,023	OTSUBO ET AL.
	Examiner	Art Unit	
	Vincent M. Rudolph	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>03 April 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-19,22 and 26-28* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-19,22 and 26-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>25 April 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some *   c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

4/3/2007 has been entered.

Specification

2.   The title of the invention is not descriptive. A new title is required that is clearly

indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-4, 9-19, 22, and 27-28 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Sato ('691) in view of Takaoka ('905).

Regarding claim 2, Sato ('691) discloses an image processor, such as a print

controller (See Figure 1, Element 102), used for recognizing a specific image within an

input image data (See Figure 7; Col. 8, Line 13-21). The system has a recognition unit,

which is used to recognize whether the specific image that is prohibited from outputting

exists in the input image data (it detects if a mark exists in the attached image, which denies printing of it, See Col. 7, Line 27-41). It also has a determination unit to tell whether the input image data meets a condition that indicates the input image data includes the specific image (a mark to indicate its copyright, See Col. 7, Line 31-34), and an output image data generation unit to output the output image data that corresponds to the input image data not recognized by the recognition unit (if the mark does not exist, then it processes the image data accordingly, See Col. 7, Line 46-60).

Sato ('691) does not disclose having the determination unit control the recognition unit not to recognize the specific image if the input image data meets the condition.

Takaoka ('905) discloses having a determination unit (character recognition / orientation discrimination unit, See Figure 1, Element 13) to determine if the input image data meets a condition (if the area within the input image data does not contain a character area, See Col. 13, Line 17-23) and does not recognize the specific image if it does meet the condition (proceeds to process the data without further recognition, See Col. 14, Line 41-48).

It would have been obvious to one of ordinary skill at the time of the invention by the applicant to have the determination unit disclosed within Takaoka ('905), and incorporate it into image processor of Sato ('691) to not recognize the specific image if the condition is met within the input image data because it prevents images with an embedded mark or image from not being detected and passed through the recognition unit.

Regarding claim 3, Sato ('691) does not disclose the determination unit

determines whether a raster image within the input image data meets the condition or

not.

Takaoka ('905) discloses the determination unit (character recognition /

orientation discrimination unit, See Figure 1, Element 13) determines if the raster image

in the input image data meets the condition or not (if the area within the input image

data contains a character area or not, See Col. 13, Line 17-27).

It would have been obvious to one of ordinary skill at the time of the invention by

the applicant to have the determination unit determine if it includes a predetermined

characteristic, such as the one disclosed within Takaoka ('905), and incorporate it into

the image processor of Sato ('691) because it is able to thoroughly analyze the raster

image in order to prevent images with a condition from not being detected.

Regarding claim 4, Sato ('691) does not disclose the determination unit

determines whether plural raster images are continuous if the raster images exist in the

input image data, which is determined by meeting the condition as one raster image.

Takaoka ('905) discloses the determination unit (character recognition /

orientation discrimination unit, See Figure 1, Element 13) discloses that plural raster

image are continuous (are able to continue the printing process) or not if they exist in

the image data (if the character areas are included within the image, See Col. 13, Line

11-19).

Takaoka ('905) does not disclose whether or not the raster images exist

determined as being continuous meet the condition as one raster image, but it would

have been obvious to one of ordinary skill in the art at the time of the invention by the

applicant to have a page of a document contains plural images if the user desires to

include it. So, if any of the images contained within the document meet the condition,

the determination unit determines if the plural raster images are continuous. Thus, by

incorporating the determination unit of Takaoka ('905) into the image processor of Sato

('691) it allows multiple raster images to be checked for the condition for different areas

rather than only looking for a specific area.

Regarding claim 9, Sato ('691) discloses an image processor, such as a print

controller (See Figure 1, Element 102), used for recognizing a specific image within the

input data (See Col. 8, Line 13-21). The system has a recognition unit, which is used to

recognize whether the specific image that is prohibited from outputting exists in the

input image data (it detects if a mark exists in the attached image, which denies printing

of it, See Col. 7, Line 27-41). It also has a determination unit to tell whether the image

data includes a predetermined characteristic (a mark to indicate its copyright, See Col.

7, Line 31-34) and an output image data generation unit to output the output image data

that corresponds to the input image data not recognized by the recognition unit (if the

mark does not exist, then it processes the image data accordingly, See Col. 7, Line 46-

60).

Sato ('691) does not disclose having the determination unit control the

recognition unit to execute processing for the input image data at a lower resolution

than an output resolution of an output image data corresponding to the input image data

and controls the recognition unit not to execute a further recognition processing for the

input image data at a higher resolution if a possibility of including the specific image in the input image data is higher than a predetermined level.

Takaoka ('905) discloses having a determination unit (character recognition / orientation discrimination unit, See Figure 1, Element 13) control a recognition unit (reading unit, See Figure 12, Element 118; Col. 22, Line 18-21) to process the image at a lower resolution than it was originally (in order to judge what the image indicates, See Col. 23, Line 28-34). If the image does not contain certain characters, then that portion is controlled to not be processed at a higher resolution (the character does exist within that portion, See Col. 24, Line 32-37).

It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have the determination unit disclosed by Takaoka ('905) and incorporate it into the image processor of Sato ('691) because it optimally sets the initial conditions of an optical recognition without significantly adding time to the recognition.

Regarding claim 10, Sato ('691) discloses that the output image data generation unit temporarily stops, such as pausing while the process is going from one step to another, a generation or the output of the image data if the determination unit decides that the recognition unit is needed for processing the image data (See Col. 7, Line 24-34).

Regarding claim 11, Sato ('691) discloses that the output image data generation unit temporarily stops, such as pausing while the process is going from one step to another, a generation or output of the image data if the determination unit determines

that a possibility of including the specific image in the input image data is higher than a predetermined level as a result of the recognition unit processing (See Col. 8, Line 9-21).

Regarding claim 12, Sato ('691) discloses that the output image data generation unit also changes the quantity, for example from one page to zero, of the output image data if it is determined that a possibility of including the specific image, as a result of the recognition unit, in the input image data is higher than a predetermined level (a specific image within the image data has a mark and is copyrighted, See Col. 7, Line 35-45).

Sato ('691) does not disclose having the determination unit execute processing for making determination on image data for every predetermined unit being processed.

Takaoka ('905) discloses having a determination unit (character recognition / orientation discrimination unit, See Figure 1, Element 13) for executing processing of determining each image data per predetermined unit being processed (receives and determines the image data per character area, See Col. 13, Line 11-16).

It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to include a determination unit, such as the one disclosed within Takaoka ('905), and incorporate it into the image processor of Sato ('691) because it is able to analyze the area within the image data in order to prevent certain images from being outputted.

Regarding claim 13, Sato ('691) discloses the output image data generation unit stops a generation or output of the image data if the recognition unit detects the existence of the specific image (See Col. 7, Line 35-45).

Regarding claim 14, Sato ('691) discloses the output image data generation unit

outputs fixed data, such converting the image data all into a blank page, as the output

image data if the recognition unit detects the specific image (See Col. 10, Line 1-9).

Regarding claim 15, Sato ('691) discloses the output image data generation unit

outputs a character string informing that an existence of the specific image is

recognized (a warning display on the host computer, Col. 10, Line 1-6) if the recognition

unit detects the specific image.

Regarding claim 16, Sato ('691) discloses an output image data generation unit

to generate and output the output image data (See Col. 7, Line 22-23). This unit stops

a generation or output of the image data if the recognition unit detects the existence of

the specific image, or a detection mark attached to the image (See Col. 7, Line 35-45).

Regarding claim 17, Sato ('691) discloses a recognition unit, which is used to

execute recognition processing for an output image data (See Col. 7, Line 27-34).

Sato ('691) does not disclose having the determination unit determine a mode for

generating the output image data in order to command the recognition unit to execute

the recognition processing if it is a predetermined mode.

Takaoka ('905) discloses having a determination unit (character recognition /

orientation discrimination unit, See Figure 1, Element 13) to determine a mode for

generating the output image (a mode to output an image depending if a character area

is detected, See Col. 13, Line 11-27).

It would have been obvious to one of ordinary skill at the time of the invention by

the applicant to have the determination unit, such as the one disclosed within Takaoka

('905), and incorporate it into the recognition unit within the image processor of Sato

('691) to execute recognition processing if the image data is a predetermined mode

because it prevents images without a predetermined mode from being detected and

passed through to the recognition unit.

Regarding claim 18, Sato ('691) does not disclose the determination unit receives

processing in units of page.

Takaoka ('905) discloses that the determination unit (character recognition /

orientation discrimination unit, See Figure 1, Element 13) executes determination

processing in units of page (an area analysis of a page in order to determine a particular

character area, See Figure 5A; Col. 13, Line 11-16).

It would have been obvious to one of ordinary skill in the art at the time of the

invention by the applicant to include a determination unit, such as the one disclosed by

Takaoka ('905), and incorporate it into the image processor of Sato ('691) because it

allows the image data to go through a thorough analysis page-by-page rather than

doing a quick check of any character area for the whole image data.

Regarding claim 19, Sato ('691) discloses an image processor, such as a print

controller (See Figure 1, Element 102), used for recognizing a specific image within an

input image data (See Col. 6, Line 38-44). The system has a recognition unit, which is

used to recognize whether the specific image that is prohibited from outputting exists in

the input image data (it detects if a mark exists in the attached image, which denies

printing of it, See Col. 7, Line 27-41). It also has a determination unit to tell whether the

image data includes a predetermined characteristic (a mark to indicate its copyright,

See Col. 7, Line 31-34), and an output image data generation unit to output the output image data without the recognition processing (if the mark does not exist, then it processes the image data accordingly, See Col. 7, Line 46-60).

Sato ('691) does not disclose having a determination unit that determines a mode for generating the output image data corresponding to the input image data in order to control the recognition unit not to execute the recognition processing if it is not a predetermined mode indicating the specific image does not exist in the input image data.

Takaoka ('905) discloses having a determination unit (character recognition / orientation discrimination unit, See Figure 1, Element 13) to determine a mode for generating the output image (a mode to output an image depending if a character area is detected, See Col. 13, Line 11-27) and does not execute recognition processing if it is not a predetermined mode (if the image data does not contain a predetermined mode, such as a character area, See Col. 13, Line 17-23, it proceeds to process the data without further recognition, See Col. 14, Line 41-48).

It would have been obvious to one of ordinary skill at the time of the invention by the applicant to have the determination unit, such as the one disclosed within Takaoka ('905), and incorporate it into the recognition unit within the image processor of Sato ('691) to not execute recognition processing if the image data is a not predetermined mode because it prevents images with a predetermined mode from not being detected and passed through to the recognition unit.

Regarding claim 27, Sato ('691) discloses that the input image data includes a PDL (See Col. 7, Line 19-20), the output image generation unit converts the PDL to output the output image data (outputs the raster image by converting it into image data, See Col. 7, Line 46-60), and the determination unit determines prior to the output image data generation unit starts the conversion whether the input image data meets the condition (detects if a mark exists or not in the attached image so that image is able to be converted and outputted, See Col. 7, Line 27-52).

Regarding claims 22 and 28, the rationale provided in the rejection of claim 2 is incorporated herein. In addition, the image processor of claim 2 corresponds to the computer-readable storage medium (See Col. 6, Line 37-40) of claim 22 as well as the method of claim 28 and performs the steps disclosed herein.

Claims 5-8 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato ('691) in view of Takaoka ('905) as applied to claim 2, and further in view of Kadowaki ('038).

Regarding claim 5, Sato ('691) does not disclose that determination unit determines whether the size of the output raster image is different than the size specified within the condition and controls the recognition unit not to recognize it if the size of the image is different in the condition.

Kadowaki ('038) discloses a condition for the raster image data that includes the image size and the number of color components (See Col. 5, Line 50-54).

It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have the image size of the raster image, such as the one disclosed by Kadowaki ('038), and incorporate it into the determination unit of Takaoka ('905) within the image processor of Sato ('691) because it helps verify that the image data is different from the set condition in order to prevent it from not being detected and passed through the recognition unit.

Regarding claim 6, Sato ('691) does not disclose that the determination unit determines whether the resolution of a raster image is lower than the resolution specified within the condition and controls the recognition unit not to recognize it if the resolution is lower than what is specified in the condition.

Kadowaki ('038) discloses one of the parameters for the raster image data is the size, which includes the resolution, of the raster image in the x and y direction (See Col. 5, Line 53-54), such as 1024x768, for making the determination of the image.

It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have the resolution of the raster image data, such as the one disclosed by Kadowaki ('038), and incorporate it into the determination unit of Takaoka ('905) within the image processor of Sato ('691) because it helps verify that the inputted image data is different from the set condition in order to prevent it from not being detected and passed through the recognition unit.

Regarding claim 7, Sato ('691) does not disclose that determination unit determines whether the number of colors on the input image data is smaller than a

predetermined number and controls the recognition unit not to recognize it if the number

of colors within the input image data is smaller than the predetermined number.

Kadowaki ('038) discloses one of the predetermined parameters for determining

a raster image data is the number of colors component (See Col. 5, Line 46-47).

It would have been obvious to one of ordinary skill in the art at the time of the

invention by the applicant to have the number of colors of the raster image data, such

as the one disclosed by Kadowaki ('038), and incorporate it into the determination unit

of Takaoka ('905) within the image processor of Sato ('691) because it helps verify that

the inputted image data is different from the predetermined number in order to prevent it

from not being detected and passed through the recognition unit.

. Regarding claim 8, Sato ('691) does not disclose that the determination unit

determines whether the input image data includes a raster image compressed using an

irreversible compression method and controls the recognition unit not to recognize it if it

does use an irreversible compression method.

Kadowaki ('038) discloses one of the predetermined parameters for determining

a raster image data is the compression format of the raster image, which is used as the

image type of the raster image (See Col. 5, Line 46) and includes compression formats

such as JPEG, GIF, BMP, etc.

It would have been obvious to one of ordinary skill in the art at the time of the

invention by the applicant to have the compression format of the raster image data,

such as the one disclosed by Kadowaki ('038), and incorporate it into the determination

unit of Takaoka ('905) within the image processor of Sato ('691) because it helps verify

that the inputted image data is different in order to prevent it from not being detected

and passed through the recognition unit.

Regarding claim 26, Sato ('691) does not disclose that the determination unit

determines whether the input image data meets the condition, such as specifying the

number of colors included in the input image data.

Kadowaki ('038) discloses one of the predetermined parameters for determining

a raster image data is the number of colors component (See Col. 5, Line 46-47).

It would have been obvious to one of ordinary skill in the art at the time of the

invention by the applicant to include the number of colors within the input image data,

such as the one disclosed within Kadowaki ('038), and incorporate it into the image

processor of Sato ('691) because it further helps to determine a condition for the

inputted image whenever judging whether it meets the specified condition.

Response to Arguments

Applicant argues that the prior art fails to disclose a recognition unit that

recognizes whether a specific image to be prohibited from outputting exists in the data,

a determination unit that determines whether the input image data meets a condition

that indicates it includes the specific image so that it is able to control the recognition

unit to not recognize that specific image if it meets the condition, and an output image

data generation unit that outputs the input image data that is not recognized by the

recognition unit. The prior art of Sato does disclose a recognition unit, which is used to

recognize whether a specific image (mark) that is prohibited from outputting does exist

in the input image data (See Col. 7, Line 27-41). A determination unit is also included,

which is used to tell whether the input image data meets a condition that indicates the

input image data includes the specific image, such as a mark to indicate its copyright

(See Col. 7, Line 31-34), as well as an output image data generation unit to output the

output image data that corresponds to the input image data not recognized by the

recognition unit, such as if the mark does not exist within the image data, it then

processes the image data accordingly (See Col. 7, Line 46-60). Even though the prior

art of Sato does not disclose having the determination unit control the recognition unit

not to recognize the specific image if the condition is met within the input image data, by

combining the teaching of Sato with the prior art of Takaoka, it is able to meet the

claimed limitation. For example, Takaoka discloses having a determination unit to

determine if the input image data meets a condition and does not recognize the specific

image if it does meet the condition, which is accomplished if the area within the input

image data does not contain a character area (See Col. 13, Line 17-23), and if it does

not, it then proceeds to process the data without further recognition (See Col. 14, Line

41-48). Thus, by incorporating with the teaching of Sato, the determination unit is able

to decide if the specific image (a mark) does meet a specific condition within the image

data (is not included) and, as a result, bypass the recognition unit to continue the output

processing as well as prevent images with an embedded mark or image from not being

detected and passed through the recognition unit. Therefore, the combined prior art is

able to meet the limitations of the amended claims.

The examiner suggests distinctly pointing out determining whether the raster

image, in the input image data, includes the specific image, which is based on the

certain condition that includes size, resolution, number of colors, **and** compression

format (See Specification, Figure 4; Page 16, Line 2-13), or if the raster image can

clearly be recognized from the proper specific image (See Specification, Page 9, Line

11-13).

The examiner also suggests distinctly pointing out that an input image data at a

lower resolution is dependent upon a predetermined level, such as the ratio or

probability (See Specification, Page 12, Line 3-6).

The examiner further suggests distinctly pointing out that a predetermined mode

can include either a normal image formation mode or a high quality mode (See

Specification, Page 15, Line 21-23), but a predetermined mode cannot be a draft mode

(See Specification, Page 21, Line 15-16).

By incorporating those limitations into the claims, it would be able to overcome

the prior art of record, but may require further searching and consideration.

Based on these facts, **THIS ACTION IS MADE NON-FINAL.**

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Vincent M. Rudolph whose telephone number is (571)

272-8243. The examiner can normally be reached on Monday through Friday 8 A.M. -

4:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Aung Moe can be reached on (571) 272-7314. The fax phone number for

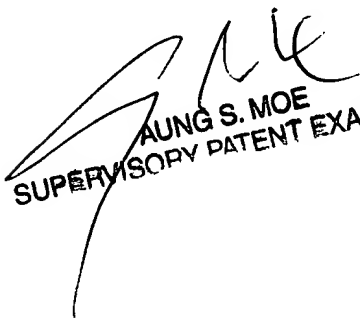the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

4/11/07

VmR

Vincent M. Rudolph
Examiner
Art Unit 2625

AUNG S. MOE
SUPERVISORY PATENT EXAMINER